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ABSTRACT

If technology is to be integrated into schools successfully, then teachers must understand that instructional technology is not just hardware or software, but rather a process and/or approach to teaching and learning. There are many benefits of and barriers to using technology in teaching. First, with the use of technology, the lesson can be adapted to accommodate special needs students. Technology helps the teacher individualize the lesson to meet all students' needs. Second, technology also helps make learning meaningful. Through the use of technology, learning can be presented in a novel and creative way. When students take personal interest in a topic, they begin to take ownership of their newly acquired knowledge. Even though the Internet has many benefits, it also has weaknesses with the use of technology. This study is a review of different genres of online educational tools and is aimed at elucidating the purposes, benefits, and barriers of using different Internet genres. (Contains 10 references.) (Author/AEF)

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Comparing Different Genres of the Internet in Education

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Abstract*

As technology improves, everyday new devices are developed in more sophisticated ways. This is also true for classroom and teaching tools. If technology is to be integrated into schools successfully, then teachers must understand that instructional technology is not just hardware or software, but rather a process and/or approach to teaching and learning. There are many benefits and barriers of using technology in teaching. First, with the use of technology the lesson can be adapted to accommodate special needs students. Technology helps the teacher individualize the lesson to meet all students' needs. Second, technology also helps make learning meaningful. Through the use of technology learning can be presented in a novel and creative way. When students take personal interest in a topic they begin to take ownership of their newly acquired knowledge. Even though the Internet has many benefits it also has weaknesses with the use of technology. This study is a review of different genres of online educational tools and aimed at elucidating the purposes benefits, and barriers of using different Internet genres.

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Envisioning Use of the Interaet in the Classroom

The Internet has been introduced in schools for 15 years; however, it has only been a few years that educators see the power of the Internet in student learning and achievement. The Internet may play various make roles in education. It is the responsibility of the teacher to decide how to best use of the Internet Genres to support student learning. When teachers integrate the genres into their curriculum, they can enhance their lesson. The Internet genres give students access to real life situations, not text book cases. Students sense the difference and are more involved, their learning is more in-depth, because they are using their critical thinking skills, making judgments. This article mainly points benefits and impediments of the Internet Genres for educators. The Internet was originally designed to allocate information in an interactive way and to allow people to communicate with each other and with machines (Bernars-Lee, 1996). It hoped that the following framework sheds light on education in classroom.

Classifying and defining different aspects of the Internet Genres allows teachers to use technology to enhance students' learning, and to improve teaching. However, without an educator who facilitates learning, the richness of Internet in the classroom setting is not effective. March in his article "Working the Web for Education" compares traditional and web-based education (March, 2001).

There are many benefits and barriers of integrating technology in class. First, with the use of technology the lesson can be adapted to accommodate special needs students. Technology helps the teacher individualize the lesson to meet *all* students' needs. Technology also helps to make learning meaningful. Through the use of technology learning can be presented in a novel and creative way. When students take personal interest in a topic they begin to take ownership of their newly acquired knowledge.

Even though the Internet has many benefits, it also has weaknesses. It can be totally useless or less useful than traditional teaching when weaknesses are not understood. One disadvantage of using the web quest format, for example, is that students could get too wrapped up in serendipitous learning. While they could go to a site carefully chosen by the teacher, they can link to other material on that site or other sites that they find personally interesting.

In this article we are going to discuss the purposes, benefits, and barriers of using different Internet genres.

WebQuest:

WebQuests include lesson plans developed and posted by teachers. The plans incorporate the use of the World Wide Web sites and allow for student interaction with the sites in order for them to solve problem and make decisions (March, 1998). [http://www.ozline.com/webquests/intro]. Students are given a scenario and specific tasks

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to complete to solve a problem or finish a project. Webquests have most of the critical attributes of learning as define by Jonnassen (1997)

Benefits:

- Different perspectives
- Meaningful knowledge
- Promote higher-order thinking
- Afford students the opportunity to practice collaborative thinking and cooperative learning skills.
- Comparing and contrasting
- Motivational
- Student have role to play
- Interdisciplinary & enabling cognitive flexibility
- Involves interactive learning
- Gain more in-depth learning skills
- Teacher (easy format) and student (safe links) friendly

Barriers:

- Time consuming (too much to cover)
- Depends on the maintenance & speed of the network
- Students' adaptation problems
- It might be hard to understand

Online Lesson

Online lesson is a continuous portion of teaching given to a certain number of learners over the Internet.

Benefits:

- Provides access to knowledge that learners need whenever they need them.
- Makes learners more independent and self-responsible.
- Easy to access
- Video and audio formats can add into lesson
- Accommodates multi-model learners
- Enables individual pace
- Easy to update information
- Economical
- Easy to access
- Easy to print presented information.
- Students can construct their knowledge without instructor

Barriers

- Affected by slow and crashing networks
- Need backup plan if not accessible
- Decreases student teacher communication and interaction
- Need content and format preparation
- Motivational factors are not enough
- It is not easy to control learners
- Students can feel lost

Tutorials

- Tutorial is a period of online instruction given by teacher to the learners.

Benefits

- Flexible. It can take place 24 hours a day at learner's convenience.
- Learner can access from any location with the Internet access.
- Economical
- Easy to follow program
- Very easy to present
- Easy to respond questions
- Experiment

Barriers

- Rigid-fixed for one type of learner
- Teacher can not adapt individual
- So much scripted-text based

Simulation

The *Oxford English Dictionary (online 2001)* gives the following definition for simulation: "The technique of imitating the behavior of some situation or process (whether economic, education, military, mechanical, etc.) by means of a suitably analogous situation or apparatus, especially for the purpose of study or personnel training". Simulation is intended to be discovery learning tool that allows the learner's freedom of exploration by giving learning environments without specific directions or explanations. Simulation occupies very important places in education (Lee, 1999). Simulations provide a unique environment for exploring new concepts, for gaining an understanding of the interplay between related complex phenomena, and for the construction of simplified working models of topics under study. Simulations are also one area in which computing technology is uniquely suited as the delivery mechanism for an educational experience.

Benefits

- Helps students gain understanding
- Allows student to learn by doing
- No risk, no danger
- Rich economical experience, at anywhere, for doing anything
- Allows students to visualize abstract concepts
- Simplification of reference system
- Experience situation
- No consequences, freedom in exploration
- Enables higher-order thinking
- Creativity increases while possible negative reactions decrease
- Control more elements and better
- Mentally active gains
- Multidimensional mental representations
- Address variety of learning styles
- Novel experiences
- Provides a guiding context within which students can integrate what they learn.

Barriers

- Can some times fake
- Not good for multiple uses-contextual
- Can expose violence
- Student imitate action in simulation in the real life-misgeneralization

- Repetition can be boring
- Within presentation mode pure simulation is of low level interaction

Games

The *Oxford English Dictionary (online 2001)* gives a definition of game as below. Game is a diversion of nature of a contest, played according to rules, and displayed in the result of superiority either in skill, strength, or good fortune of the winner or winners.

Benefits

- Has scores reinforcing
- Motivational
- Has fun
- Engaging
- No danger
- No consequences
- Enables higher-order thinking
- Offers big picture view leading to analysis and synthesis
- Communicate players instead of dialogue
- Explore problems and different perspective

Barriers

- More fun than learning
- Time consuming
- Possibility of exposure to violence
- Less control over students
- Repetition may be boring

Telecollaborative: Interpersonal Exchange

Telecollaborative/Interpersonal Exchanges are the structured activities in which students use the Internet tools such as e-mail, chat, and the world wide web to access, process, and share data and to commu nicate, and cooperate. Interpersonal Exchanges include: key pals, global classrooms, electronic appearances, telementoring, question-and-answer activities, and impersonations (Harris, 2001)

Benefits

- Can talk to guest speakers
- Provides multiple perspectives
- Share ideas
- Connect to people outside of classroom around the world
- Bring expert to the classroom
- Generally free

Barriers

- Requires background planning time, preparation takes time
- Needs equipment to practice
- Depend on network

Telecollaborative: Information Collection and Problem Solving

Information Collection and Analysis are the activities that allow students to be involved in collecting, compiling, and comparing different types of information. Information Collection and Analysis activity structures include: information exchanges, database creation, electronic publishing, telefieldtrips, and pooled data analysis (Harris, 2001)

Benefits

- Scientists and students can come together
- Collect data
- Share different data
- Gain access to information from experts
- Apply knowledge in real situation
- Promote higher-order thinking
- Analyze different views, evaluating information
- Includes learning activities

Barriers

- Information is not always evaluated for accuracy, relevance, and currency
- Information may be too difficult or easy for students grade level
- Difficult to control
- Need technological tools
- Limited time, time consuming
- May not be appropriate student level and decide what kind of genres will be fit best to content that is going to teach. The new "representation infrastructures
-

Conclusion

New representative distributed learning tools have both advantages and disadvantages. The incoming information is constantly growing. However, being able to access data and information do not automatically increase students' knowledge (Dede, 1996). Accessing to the Internet Genres does not improve student learning as well. Teachers must investigate both advantages and disadvantages of the Internet genres" brings numerous opportunities for both teachers and learners. However, learners also need enthusiastic, well-educated, and caring teachers, better facilities and equipment. Without removing barriers (such as the learner's comfort level with technology, technical shortage, level of interaction, the level of learner's psychological readiness, cultural/individual characteristics, and environmental factors) in front of the learner, we cannot achieve our goal, which is transformation of required knowledge.

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